

▶ EliteView

The easy way to manage your network

**SNMP-Based
Network Management Software
for Windows™
Managing SMC's TigerSwitch™ 100**

SMC®

User Guide



ELITEVIEW™
NETWORK MANAGEMENT SOFTWARE

MANAGING SMC'S TIGERSWITCH™ 100

SMC6608T

SMC6608M

SMC
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Introduction

SMC's TigerSwitch 100 units are high-performance, Fast Ethernet switches that are perfect for high-traffic environments. Depending on the model, the TigerSwitch 100 features either 8 fixed 100BASE-TX ports with Auto-Negotiation (automatic selection of data rate and operating mode based on attached device) or various combinations of 100BASE-TX and 100BASE-FX ports distributed among two 4-port replaceable modules.

An SNMP Agent is also included so that SMC's EliteView or other SNMP-based management applications can collect and display status and performance information about the switch and perform needed configuration and control functions.

Supported TigerSwitch 100 models include:

- SMC6608T
- SMC6608M

Some of the real-time management functions that EliteView allows you to perform for the TigerSwitch 100 include:

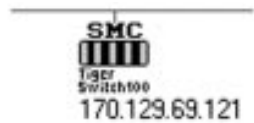
- Viewing Status LEDs
- Viewing Switch Summary and Statistics
- Viewing a Port Summary and Port Statistics
- Obtaining performance statistics for IP, SNMP and ICMP protocols
- Configuring and viewing statistics for the Spanning Tree Protocol (STP)
- Configuring trap tables
- VLAN Groups

Refer to your TigerSwitch 100 documentation for a full description of the TigerSwitch 100 switch and the MIB variables used to manage it.

Note: For general instructions about how to install and use EliteView, refer to the EliteView User Guide.

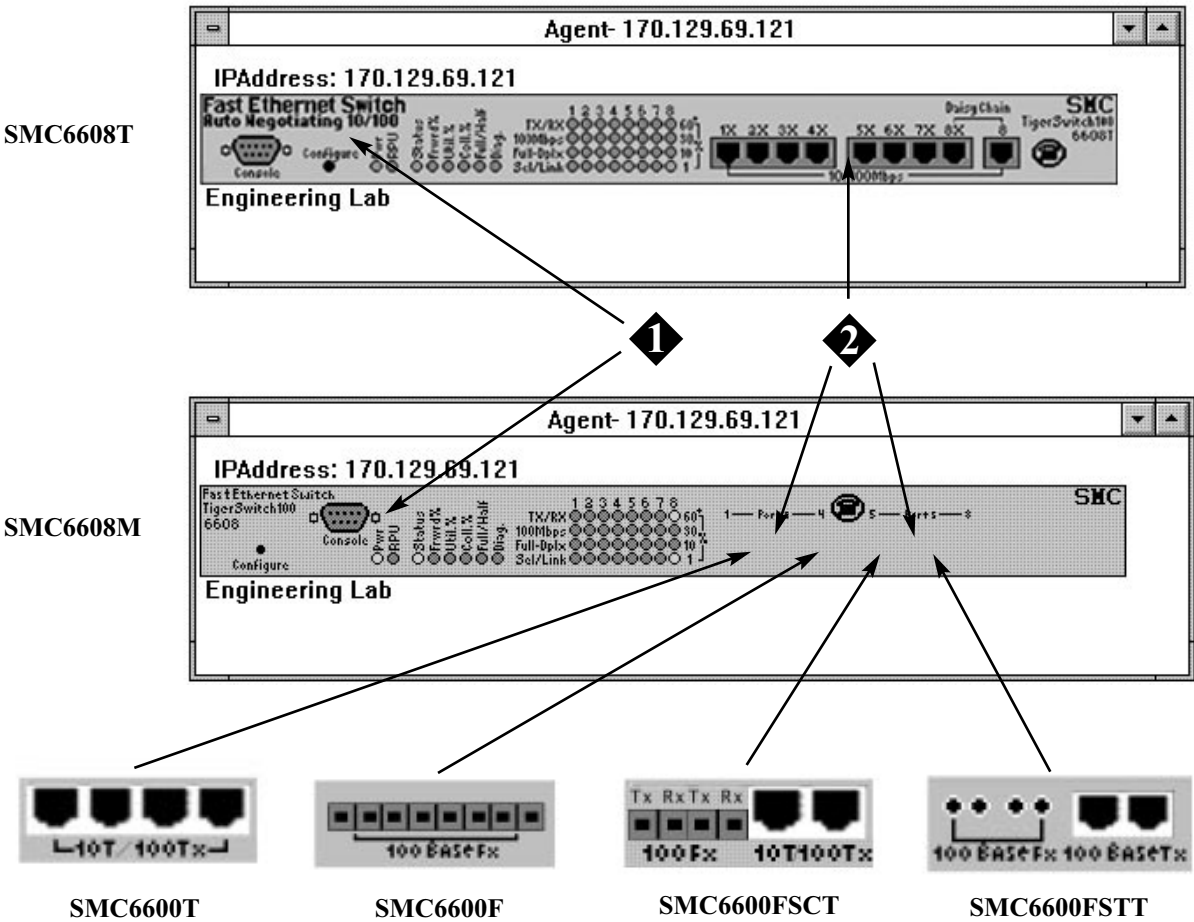
Accessing the TigerSwitch 100

On the Subnet map, double-click the TigerSwitch 100 icon representing the switch you wish to manage.



Note: You can also select a TigerSwitch 100 from the Node list, or you may use the pull-down menus. Under **Object**, choose **Manage Device**, click on **IP** and enter the IP address of the switch you wish to manage.

A zoomed-in graphic of the front-panel of the TigerSwitch 100 unit you are accessing, similar to one of those illustrated below, will appear showing the node address and location. The front panel LEDs are also displayed (*Refer to the TigerSwitch 100 user guide for a complete description of the front panel LEDs*).



Accessing TigerSwitch 100 Summary Screens

The diagrams on the previous page represent the front-panels of the two TigerSwitch 100 units. Please note that the front-panel representation of the TigerSwitch 100M (SMC6608M) is dependent upon the module(s) installed in the switch. Any one (or two) of the modules shown below the graphic will appear as part of the graphic (in the general area marked by the arrows), if installed in the switch.

Switch and Port Summary screens are accessible through the front-panel graphic. To access either of these screens, double-click on the corresponding zone (see previous page):



Displays **Switch Summary** screen



Displays **Port Summary** screen. *(When the cursor is passed over a port, the port outline changes color to red. Double-click on the port after it changes to red to access the Port Summary screen for that port.)*

Almost all of the subsequent management screens are accessible through either the Switch Summary or Port Summary screen. The **Trap Table** configuration screen, however, must be accessed by way of the pull-down menus *(See the chapter entitled “Configuring Traps” for specific information).*

TigerSwitch 100 Front Panel Description

The **Configure** button is used to toggle the display mode to access various configuration functions:

Port Status Display Mode (“Status”)

Displays the status of each port (transmission mode, transmit, receive, and link) during normal operation.

System Performance Display Mode (“Frwr%”, “Util%”, “Coll%”)

Displays system performance data (forwarding ratio, bandwidth utilization, collision ratio) during normal operation.

Full/Half Duplex Display Mode (“Full/Half”)

Sets port communication mode to full-duplex or half-duplex operation.

Diagnostics Display Mode (“Diag”)

Tests the status of various system components. A “long press” on the **Configure** button is used to initiate basic configuration. A “short press” switches from one function to the next, and another “long press” implements the selection.

Front Panel LEDs

LED	Condition	Status
Power		
PWR RPU	Off Off	No AC power
PWR RPU	Green Off	Internal power supply is operating properly; redundant power supply is not present or has been disconnected
PWR RPU	Green Green	Both internal and redundant power supplies are operating properly
PWR RPU	Red Green	Internal power supply has failed; device is being powered by redundant power supply
PWR RPU	Red Off	Redundant power supply has failed; device is being powered by internal power supply
Port Status Display Mode		
Status	On Off	Port status display mode active Port status display mode inactive
TX/RX	Green - Blinking Off	Port is transmitting/receiving packets; blinking is proportional to the rate of traffic passing through the port No packets are traversing this port
100Mbps	On Off	Port is set at 100 Mbps Port is set at 10 Mbps
Full-Dplx	On Off	Port is set for full-duplex operation Port is set for half-duplex operation
Sel/Link	On Off	A valid link exists on this port No valid link has been established on this port
Statistical Display for System Performance Display Mode		
60+	Green	Forward % Display Mode: The percentage of packets that are forwarded to another port
30	Green	Utilization % Display Mode: The utilization percentage of LAN bandwidth
10	Green	Collision % Display Mode: The percentage of packet collisions in the port's segment
1	Green	



LED	Condition	Status
Port Forwarding Ratio (System Performance Display Mode)		
Frwrdd%	On Off	Port forward display mode active Port forward display mode is inactive
Port Utilization Rate (System Performance Display Mode)		
Util%	On Off	Port utilization display mode active Port utilization display mode is inactive
Port Collision Ratio (System Performance Display Mode)		
Coll%	On Off	Port collision display mode active Port collision display mode is inactive
Full/Half Duplex Display Mode		
Full/Half	On Off	Transmission mode selection enabled Transmission mode selection disabled
Port Selection LED	On Off	Port selected Port not selected
Port Status LED	On Off	Port is set for full-duplex operation Port is set for for half-duplex operation
Diagnostics Display Mode*		
Diag	On Off	Diagnostics mode selection enabled Diagnostics mode selectin disabled
<p>* Diagnostics are performed in two stages: the System Diagnostic and Port Diagnostic tests. Results are provided in the Port Status display area. Please refer to the TigerSwitch 100 user guide for a detailed explanation of results.</p>		

Switch Summary

The Switch Summary screen allows you to set parameters, change the poll interval for collecting statistics, and update or halt the gathering of statistics. It also contains buttons for accessing Switch Statistics, Spanning Tree and VLAN Group screens.

Accessing the Switch Summary

Double-click anywhere in Zone 1 (*See page 2*) to display the Switch Summary screen for the TigerSwitch 100.

Agent- 170.129.69.121: SMC TigerSwitch 100 Switch Summary			
Statistics		Spanning Tree	VLAN Groups
Agent Type:	SMC TigerSwitch 100		{sysDescr}
Agent Name:	<input type="text" value="SMC TigerSwitch 100"/>		{sysName}
Internet Contact:	<input type="text"/>		{sysContact}
Location:	<input type="text" value="Engineering Lab"/>		{sysLocation}
System Up Time:	{ 2 days, 18 hrs, 21 min, 25 sec }		{sysUpTime}
IP Address:	170.129.69.121	Spanning Tree Protocol:	3{ieee8021d}
Gateway IP Address:	170.129.69.1	Spanning Tree Protocol Status:	<input type="text" value="2(off)"/> 
NetMask:	255.255.255.0		
IP State:	2{bootp_when_needed}		
Bridging Available:	2{transparent-only}	Reset Number:	0
Diagnostics Status When Power On:	<input type="text" value="1(enabled)"/> 		
<div><input type="button" value="Update"/> <input type="button" value="Poll Interval"/> <input type="button" value="Set"/> <input type="button" value="Close"/></div>			

Switch Summary Guidelines

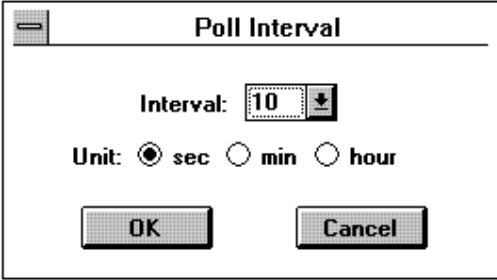
Gray fields display data collected from discovered devices. These fields may not be modified. **Note:** You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).

Modifying Switch Summary parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - **Agent Name** — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - **Internet Contact** — This field, which displays the name and/or phone number of a contact person (e.g., the network manager or technical support department), can be a maximum of 32 characters. It corresponds to the MIB II variable **sysContact**.
 - **Location** — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - **Spanning Tree Protocol Status** — This field displays the switch's Spanning Tree status, ON or OFF. The Spanning Tree Protocol, when enabled, allows redundant paths to be created between LAN segments. The default factory setting for Spanning Tree Protocol is enabled. It can be disabled using this drop-down list.*
 - **Diagnostic Status When Power On** — This field displays the status of the option to enable a diagnostic status test upon power on (off or on).
 - **Poll Interval** — **Poll Interval** — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*see figure on page 8*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.

***Note:** In the event that any port is configured as a member of multiple VLAN groups, Spanning Tree Protocol will be disabled. Therefore, the drop-down list will be deactivated and the user will no longer be able to turn on Spanning Tree.

MANAGING SMC'S TIGERSWITCH 100

A dialog box titled "Poll Interval" with a standard window icon in the top-left corner. Inside the box, there is a label "Interval:" followed by a text input field containing the number "10" and a small up/down arrow button. Below this, the label "Unit:" is followed by three radio buttons: "sec" (which is selected), "min", and "hour". At the bottom of the dialog box are two buttons: "OK" and "Cancel".

Poll Interval

Interval: 10

Unit: ☒ sec ☐ min ☐ hour

OK Cancel

3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

The following is a list of parameters which are **displayed only**. They cannot be changed from the Switch Summary screen:

- IP Address— This field displays the IP Address of the TigerSwitch 100.
- Gateway IP Address — This field displays the address of the default gateway (or router) to which the switch sends IP packets destined for a different subnet.
- NetMask— This field displays the IP subnet mask of the switch that corresponds to the assigned IP address.
- IP State — This field specifies whether the IP address is set by the Boot Protocol (BOOTP). Options include **IP Disabled** (switch will not process any IP or Address Resolution Protocol [ARP] frames it receives), **BOOTP When Needed** (default, if a non-zero IP address has been stored in EEPROM, IP is enabled, if the IP address is zero, the switch will broadcast BOOTP requests to try to learn its IP address), and **BOOTP Always** (IP is enabled but will not function until a BOOTP reply is received).
- Bridging Available — This field indicates the type of bridging this bridge can perform. The TigerSwitch 100 supports transparent-only (2).
- Spanning Tree Protocol — This field displays the version of Spanning Tree Protocol being run. The TigerSwitch 100 supports ANSI/IEEE 8021d (3).
- Reset Number — This field displays the reset count, or the number of times the switch has been reset.

Switch Statistics

The Switch Statistics screen allows you to view more detailed status information and statistics about the TigerSwitch 100. It also contains buttons for accessing **IP Statistics**, **SNMP Statistics**, **ICMP Statistics**, and **Health Statistics** screens.

Accessing Switch Statistics

Click the **Statistics** button on the Switch Summary screen to access the **Switch Statistics** screen illustrated below.

Agent- 170.129.69.121: SMC TigerSwitch 100 Switch Statistics

IP SNMP ICMP Health

Agent Type: SMC TigerSwitch 100 (sysDescr)
Agent Name: SMC TigerSwitch 100 (sysName)
Location: Engineering Lab (sysLocation)
System Up Time: [2 days, 18 hrs, 50 min, 53 sec] (sysUpTime)

Frames

Received Local	41649	Lost in Input Queue	0
Forwarded	771277	Lost in Output Queue	0
Learned Broadcast	2982	In Input Queue	0
Short Frames	2335	In Output Queue	0

Active Stations 64

Update Poll Interval Set Close

Switch Statistics Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying Switch Statistics parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - Agent Name — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - Internet Contact — This field, which displays the name and/or phone number of a contact person (e.g., the network manager or technical support department), can be a maximum of 32 characters. It corresponds to the MIB II variable **sysContact**.
 - Location — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - Poll Interval — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

IP Statistics

This window provides information about IP packets received and transmitted by the TigerSwitch 100.

Accessing IP Statistics

Click the **IP** button on the Switch Statistics screen to display the **IP Statistics** screen illustrated below.

Agent- 170.129.69.121: SMC TigerSwitch 100 IP Statistics

Agent Name:	SMC TigerSwitch 100	{sysName}
Location:	Engineering Lab	{sysLocation}
System Up Time:	{ 2 days, 19 hrs, 5 min, 55 sec }	{sysUpTime}

Packets Received	230372	
Header Errors	0	
Invalid Address Errors	26269	
Packets Routed	0	
Unknown Protocol Errors	0	
In Discards	0	
Packets Delivered OK	199412	
Packets Transmitted	199352	
Out Discards	0	
No Route Errors	0	
IP Fragments Received	0	
Datagrams Reassembled	0	
Reassembly Errors	0	
Datagrams Fragmented	0	
Fragmentation Errors	0	
Fragments Generated	0	
Routing Entry Discards	0	

Update

Poll Interval

Set

Close

IP Statistics Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying IP Statistics parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - Agent Name — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - Location — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - Poll Interval — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

Corresponding MIB Variables

The statistics displayed correspond to the following MIB II variables.

- Packets Received — ipInReceives
- Header Errors — ipInHdrErrors
- Invalid Address Errors — ipInAddrErrors
- Packets Routed — ipForwDatagrams
- Unknown Protocol Errors — ipInUnknownProtos
- In Discards — ipInDiscards
- Packets Delivered OK — ipInDelivers
- Packets Transmitted — ipOutRequests
- Out Discards — ipOutDiscards
- No Route Errors — ipOutNoRoutes
- IP Fragments Received — ipReasmReqds
- Datagrams Reassembled — ipReasmOKs
- Reassembly Errors — ipReasmFails
- Datagrams Fragmented — ipFragOKs
- Fragmentation Errors — ipFragFails
- Fragments Generated — ipFragCreates
- Routing Entry Discards — ipRoutingDiscards

For more information about these standard MIB II variables, refer to RFC 1213.

SNMP Statistics

This window displays the most recently retrieved statistics for SNMP PDUs, requests and errors.

Accessing SNMP Statistics

Click the **SNMP** button on the Switch Statistics screen to display the **SNMP Statistics** screen illustrated below.

Agent- 170.129.69.121: SMC TigerSwitch 100 SNMP Statistics

Agent Name:	SMC TigerSwitch 100	{sysName}
Location:	Engineering Lab	{sysLocation}
System Up Time:	{ 2 days, 20 hrs, 12 min, 35 sec }	{sysUpTime}

PDU's Received	202897
PDU's Transmitted	202880
Bad Version Received	18
Bad Community Name Received	0
Authentication Failures	0
ASN.1 Parsing Errors	0
MIB Objects Retrieved	1106750
Mib Objects Changed	0
Total Get Requests	202532
Total GETNEXT Requests	347
Total Set Requests	0
Too Big Errors	0
No Such Name Errors	32
Bad Value Errors	0
General Errors	0
Get Responses	202878
Traps Transmitted	2

Update

Poll Interval

Set

Close

SNMP Statistics Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying SNMP Statistics parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - **Agent Name** — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - **Location** — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - **Poll Interval** — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

Corresponding MIB Variables

The statistics displayed correspond to the following MIB II variables.

- PDU's Received — `snmpInPkts`
- PDU's Transmitted — `snmpOutPkts`
- Bad Version Received — `snmpInBadVersions`
- Bad Community Name Received — `snmpInBadCommunityNames`
- Authentication Failures — `snmpInBadCommunityUses`
- ASN.1 Parsing Errors — `snmpInASNParseErrs`
- MIB Objects Retrieved — `snmpInTotalReqVars`
- MIB Objects Changed — `snmpInTotalSetVars`
- Total Get Requests — `snmpInGetRequests`
- Total GET NEXT Requests — `snmpInGetNexts`
- Total Set Requests — `snmpInSetRequests`
- Too Big Errors — `snmpOutTooBigs`
- No Such Name Errors — `snmpOutNoSuchName`
- Bad Value Errors — `snmpOutBadValues`
- General Errors — `snmpOutGenErrs`
- Get Responses — `snmpOutGetResponses`
- Traps Transmitted — `snmpOutTraps`

For more information about these standard MIB II variables, refer to RFC 1213.

ICMP Statistics

This window displays statistics relating to ICMP messages (ping packets).

Accessing the ICMP Statistics

Click the **ICMP** button on the Switch Statistics screen to display the **ICMP Statistics** screen illustrated below.

Agent- 170.129.69.121: SMC TigerSwitch 100 ICMP Statistics

Agent Name: SMC TigerSwitch 100 (sysName)

Location: Engineering Lab (sysLocation)

System Up Time: [2 days, 20 hrs, 14 min, 54 sec] (sysUpTime)

	Receive	Transmit
Messages	16	0
Errors	0	0
Destination Unreachables	1	0
Time Exceeds	0	0
Parameter Problems	0	0
Source Quenches	0	0
Redirects	0	0
Echo Requests	12	0
Echo Replies	0	12
Timestamp Requests	0	0
Timestamp Replies	0	0
Address Mask Requests	0	0
Address Mask Replies	0	0

Update
Poll Interval
Set
Close

ICMP Statistics Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying ICMP Statistics parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - Agent Name — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - Location — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - Poll Interval — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

Corresponding MIB Variables

The statistics displayed correspond to the following MIB II variables.

	Receive	Transmit
• Messages	— icmpInMsgs	— icmpOutMsgs
• Errors	— icmpInErrors	— icmpOutErrors
• Destination Unreachables	— icmpInDestUnreachs	— icmpOutDestUnreachs
• Time Exceeds	— icmpInTimeExcds	— icmpOutTimeExcds
• Parameter Problems	— icmpInParmProbs	— icmpOutParmProbs
• Source Quenches	— icmpInSrcQuenchs	— icmpOutSrcQuenchs
• Redirects	— icmpInRedirects	— icmpOutRedirects
• Echo Requests	— icmpInEchos	— icmpOutEchos
• Echo Replies	— icmpInEchoReps	— icmpOutEchoReps
• Timestamp Requests	— icmpInTimestamps	— icmpOutTimestamps
• Timestamp Replies	— icmpInTimestampReps	— icmpOutTimestampReps
• Address Mask Requests	— icmpInAddrMasks	— icmpOutAddrMasks
• Address Mask Replies	— icmpInAddrMaskReps	— icmpOutAddrMaskReps

For more information about these standard MIB II variables, refer to RFC 1213.

Health Statistics

This window includes information that reflects packet transmit and receive activity across the entireTigerSwitch 100.

Accessing Health Statistics

Click the **Health** button on the Switch Statistics screen to display the **Health Statistics** screen illustrated below.

The screenshot shows a window titled "Agent- 170.129.69.121: SMC TigerSwitch 100 Health Statistics". Inside the window, there are three main sections: system information, received statistics, and transmitted statistics. The system information section includes fields for Agent Name, Location, and System Up Time. The received statistics section shows packets received, bytes received, oversized packets received, and multicast packets received. The transmitted statistics section shows packets transmitted, bytes transmitted, transmit collisions, and packets dropped. There are four buttons on the right side of the window: Update, Poll Interval, Set, and Close.

Agent- 170.129.69.121: SMC TigerSwitch 100 Health Statistics	
Agent Name:	SMC TigerSwitch 100 (sysName)
Location:	Engineering Lab (sysLocation)
System Up Time:	(2 days, 20 hrs, 17 min, 0 sec) (sysUpTime)
Received	
Packets Received	0
Bytes Received	188154572
Oversized Packets Received	0
Multicast Pkts Received	0
Transmitted	
Packets Transmitted	0
Bytes Transmitted	38281587
Transmit Collisions	0
Packets Dropped	0

Update

Poll Interval

Set

Close

Health Statistics Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying Health Statistics parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - **Agent Name** — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - **Location** — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - **Poll Interval** — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

Corresponding MIB Variables

The statistics displayed correspond to the following MIB II variables.

- Packets Received — sum of ifInUcastPkts and ifInNUcastPkts for all 8 ports
- Packets Transmitted — sum of ifOutUcastPkts and ifOutNUcastPkts for all 8 ports
- Bytes Received — sum of ifOutUcastPkts and ifOutNUcastPkts for all 8 ports
- Bytes Transmitted — sum of ifOutOctets for all 8 ports
- Oversized Packets Received — sum of dot3StatsFramesTooLongs for all 8 ports
- Multicast Packets Received — sum of ifInNUcastPkts for all 8 ports
- Transmit Collision — sum of dot3StatsMultipleCollisionFrames for all 8 ports
- Packets Dropped — sum of ifInUnknownProtos for all 8 ports

For more information about these standard MIB II variables, refer to RFC 1213 and RFC 1643.

Spanning Tree

The Spanning Tree dialog box allows you to configure and modify Spanning Tree parameters.

Accessing Spanning Tree

Click the **Spanning Tree** button on the Switch Summary screen to display the **Spanning Tree** dialog box illustrated below.

TigerSwitch 100 Spanning Tree

Bridge Data

MAC Address: 00:80:0f:70:5e:70

Priority: 32768

Root Bridge

Designated Root: 00:00:00:00:00:00:00:00

Root Path Cost: 0

Root Port: 0

Spanning Tree Topology Changes

Number of Changes: 0

Time Since Last Change: 245931 (2 days, 20 hrs, 18 min, 51 sec)

Current Spanning Tree

Max Age Time: 0 (time in hundredths of a sec)

Hello Time: 0

Hold Time: 0

Forward Delay Time: 0

Spanning Tree Configuration

Bridge Max Age Time: 2000 (time in hundredths of a sec)

Bridge Hello Time: 200

Bridge Forward Delay Time: 1500

Database Aging Time: 300

Set

Close

Spanning Tree Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified.

Modifying Spanning Tree parameters

1. Enter or change the following parameters, according to the guidelines provided:

Bridge Data:

- MAC Address — The MAC address of port 1 on the TigerSwitch 100
- Priority — This can have any value from 0 to 65535. This is used by the Spanning Tree Protocol, along with the MAC address, to uniquely identify the TigerSwitch 100.

Spanning Tree Configuration:

- Max Age Time — The value that all bridges use for MaxAge when this bridge is acting as the root. The value must be a whole number, at least 6 seconds, and must adhere to the following equations:
$$2 \times (\text{Forward Delay Time} - 1) \geq \text{Max Age Time} \quad (1)$$
$$\text{Max Age Time} \geq 2 \times (\text{Hello Time} + 1) \quad (2)$$
 - Hello Time — The value that all bridges use for HelloTime when this bridge is acting as the root. The value must be a whole number, and adhere to the above equations.
 - Forward Delay Time — The value that all bridges use for ForwardDelay when this bridge is acting as the root. The value must be a whole number, at least 4 seconds, and adhere to the above equations.
 - Database Aging Time — The time in which the TigerSwitch 100 discards inactive addresses.
2. When all information has been entered, click on **Set** to change the associated MIB II variables within the TigerSwitch 100.
 3. Click on **Close** to close the window.

VLAN Groups

This window displays current VLAN group information. It allows VLAN grouping status for all ports to be modified.

Each row corresponds to the port listed on the left-hand side. Each column represents the group number that each port can be associated with. Each port can be included in up to 8 groups, but each port **must** be included in at least one group. Otherwise, an error will be generated.

Accessing VLAN Groups

Click the **VLAN Groups** button on the Switch Summary screen to display the **VLAN Groups** screen illustrated below.

Agent- 170.129.69.121: SMC TigerSwitch 100 Vlan Groups

	1	2	3	4	5	6	7	8
Port 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port 8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="button" value="Set"/>	<input type="button" value="Set"/>	<input type="button" value="Set"/>	<input type="button" value="Set"/>	<input type="button" value="Set"/>	<input type="button" value="Set"/>	<input type="button" value="Set"/>	<input type="button" value="Set"/>
	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>	<input type="button" value="Clear"/>

VLAN Groups Guidelines

Modifying VLAN Groups

1. Click on **Halt**.
2. To **add** a port to a VLAN group, click the empty box at the intersection of the row and column corresponding to the appropriate port and VLAN group, respectively. A check mark will appear in the box to indicate that the port is now included in the VLAN group.
3. To **remove** a port from a VLAN group, click the checked box at the intersection of the row and column corresponding to the appropriate port and VLAN group, respectively. The check mark will disappear from the box to indicate that the port is not included in the VLAN group.
4. The **VLAN Groups** screen has extra **Set** and **Clear** buttons located at the bottom of each column. These buttons allow the user to check or uncheck an entire column all at once.
5. Click on **Set** to save the changes.
6. Click on **Update** to initiate the changes.*
7. Click on **Close** to close the window.
8. The following parameters may also be set from this screen:
 - Poll Interval — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.

* **Note:** When changes are updated, EliteView must send a command frame to the SNMP agent in the TigerSwitch 100 and a response frame must be received back for the changes to take effect. The result is a slight delay between the updating of VLAN information and the actual activation of changes. If further changes are required, it is recommended that you exit the VLAN Groups screen, and then re-enter it after several seconds to insure that the previously input changes have taken effect before making any new modifications.

Port Summary

The Port Summary screen allows you to set parameters, change the poll interval for collecting statistics, update or halt the gathering of statistics for the selected port, modify the VLAN group membership for the selected port and access the Port Statistics screen.

Agent- 170.129.69.121: SMC TigerSwitch 100 Port Summary - Port 5

Statistics

Agent Type: SMC TigerSwitch 100 (sysDescr)
Agent Name: SMC TigerSwitch 100 (sysName)
Internet Contact: (sysContact)
Location: Engineering Lab (sysLocation)
System Up Time: (2 days, 20 hrs, 26 min, 37 sec) (sysUpTime)

Port Number: 5 MAC Addr: 00 80 0F 70 5E 74
Port Type: 6(ethernet-csmacd) Port Status: 2(down)
Largest Datagram: 1518 Port Speed (bps): 100000000
Port Description: Ethernet 802.3/802.3u Port Duplex State: 1(halfDuplex)
Output Queue Size: 131072 Port Media Type: 3(100BASE-FX-SC)

Number of Errors
Alignment 0 FCS Errors: 0
Total Collisioens: 0 SQE Errors: 0
Carrier Lost: 0 Internal MAC Tx: 0
Frame Too Long: 0 Internal MAC Rx: 0
Tx Aborts: 0

Port Configuration
Operation Status 1(enabled) Switch Mode 1(cut_through)
Port Duplex 2(full Duplex) Flow Control 1(enabled)

VLAN Groups
Group Number 1 2 3 4 5 6 7 8
☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Update Poll Interval Set Close

Accessing Port Summary

Double-click on a port box (*Zone 2 - See page 2*) and the **Port Summary** screen will be displayed for that port. (*When the cursor is passed over a port of the TigerSwitch 100 graphic, the port outline changes color to red. Double-click on the port after it changes to red to access the **Port Summary** screen.*)

Port Summary Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying Port Summary parameter fields

1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - **Agent Name** — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - **Internet Contact** — This field, which displays the name and/or phone number of a contact person (e.g., the network manager or technical support department), can be a maximum of 32 characters. It corresponds to the MIB II variable **sysContact**.
 - **Location** — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - **Poll Interval** — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
 - **Operation Status** — This field displays the port status (enabled or disabled).
 - **Port Duplex** — This field displays the communication mode of the port. Options include **auto-negotiation**, **full-duplex**, and **half-duplex**.
 - **Switch Mode** — This field displays the method to be used for forwarding packets. Options include **cut-through (CT)**, **fragment-free cut-through (FgFree)**, **adaptive cut-through (A-CT)**, and **store-and-forward (S&F)**.

- Flow Control — This field displays the flow control status (enabled or disabled).
 - VLAN Groups — This section displays the port's VLAN group membership status. To modify the port's VLAN status, click the empty check box under the desired group to add the port to that group. To remove the port from a VLAN group, click the check-marked box under the group to remove the check mark. *(See pages 25-26 for additional information regarding VLAN groups)*
3. Click on **Set** to save the changes.
 4. Click on **Update** to initiate the changes.
 5. Click on **Close** to close the window.

Port Statistics

The Port Statistics screen allows you to view more detailed status information and statistics regarding the selected port.

Accessing Port Statistics

Click the **Statistics** button on the Port Summary screen to access the **Port Statistics** screen illustrated below.

Agent- 170.129.69.121: SMC TigerSwitch 100 Port Statistics - Port 5

Agent Name:	SMC TigerSwitch 100	(sysName)
Location:	Engineering Lab	(sysLocation)
System Up Time:	{ 2 days, 20 hrs, 46 min, 22 sec }	(sysUpTime)

Receive		Transmit	
Packets	0	Packets	0
Packets/Second	0	Packets/Second	0
Bytes	0	Bytes	0
Bytes/Second	0	Bytes/Second	0

Bridging		Update Poll Interval Set Close
Transmit Delay	0	
Forward Transitions	0	
Packets Received - This Segment	0	
Packets Dropped - Too Large	0	
Frames Discarded by Forwarding Process	0	
Packets Transmitted - This Segment	0	

Port Statistics Guidelines

Gray fields display data collected from discovered devices. These fields may not be modified. **Note: You can only set parameters and/or change the poll interval when the polling process is stopped (i.e., when the Halt/Update button is toggled to *Update*).**

Modifying Port Statistics parameter fields

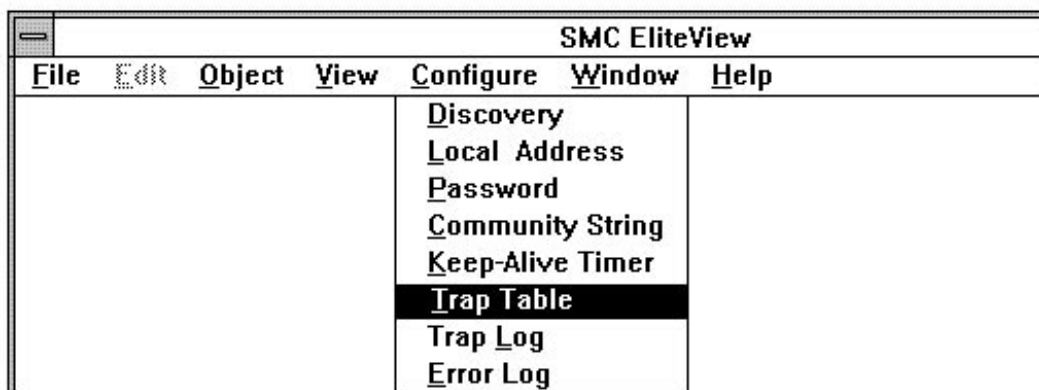
1. Click on **Halt**.
2. Enter or change the following parameters to desired values:
 - **Agent Name** — This field, which displays the name of the device, can be up to 256 characters in length. It corresponds to the MIB II variable **sysName**.
 - **Location** — This field, which displays the location of the TigerSwitch 100, can be up to 256 characters in length. It corresponds to the MIB II variable **sysLocation**.
 - **Poll Interval** — This is the time interval during which EliteView reads the status of the TigerSwitch 100. The interval may be set to between 0 seconds (no polling) and 60 hours. The default value is 10 seconds. To change the interval, click on the **Poll Interval** button to display the Poll Interval dialog box (*See page 7*). You can adjust the time interval by changing the **Interval** and **Unit** settings. Then, click **OK** to initiate the new settings.
3. Click on **Set** to save the changes.
4. Click on **Update** to initiate the changes.
5. Click on **Close** to close the window.

Configuring Traps

The Trap Configuration table lets you configure the sending of trap alert notifications.

Accessing Trap Configuration

Select the TigerSwitch 100 Agent and then select the **Configure** pull-down menu. Choose **Trap Table** from the pull-down menu selection list shown below. The **Trap Configuration** dialog box (illustrated on the following page) will then be displayed.



Trap Configuration Guidelines

The information in the top portion of the screen is automatically read by EliteView. If this is the first time you are configuring the trap table, the Destination Addresses are all set to zero. The trap destination address and community string must be entered.

The following parameters may be set:

- Agent Name — This field, which displays the name of the device, can be up to 256 characters in length. It reflects the MIB II variable sysName.
- Location — This field, which displays the location of the TigerSwitch XE, can be up to 256 characters in length. It corresponds to the MIB II variable sysLocation.
- SNMP Trap Destination — You can configure up to 8 destination addresses. Enter the IP address, following the format shown, for the stations to be sent trap alerts.

Agent- 170.129.69.121: SMC TigerSwitch 100 Trap Configuration
▼ ▲

Agent Type: SMC TigerSwitch 100
Agent Name:
Location:

[sysDescr]
[sysName]
[sysLocation]

Trap Manager Table

	IPAddress	Index (CommunityString)	Status
1.	<input type="text" value="170.129.71.105"/>	<input type="text" value=""/> ▼	2(valid) ▼
2.	<input type="text" value="170.129.61.147"/>	<input type="text" value=""/> ▼	2(valid) ▼
3.	<input type="text" value="170.129.68.43"/>	<input type="text" value=""/> ▼	2(valid) ▼
4.	<input type="text" value="170.129.71.14"/>	<input type="text" value=""/> ▼	2(valid) ▼
5.	<input type="text" value="170.129.60.1"/>	<input type="text" value=""/> ▼	2(valid) ▼
6.	<input type="text" value="170.129.86.112"/>	<input type="text" value=""/> ▼	2(valid) ▼
7.	<input type="text" value="170.129.67.31"/>	<input type="text" value=""/> ▼	2(valid) ▼
8.	<input type="text" value="170.129.163.67"/>	<input type="text" value=""/> ▼	2(valid) ▼

Modifying Trap Configuration parameter fields

1. Enter the destination **IP Address(es)** and choose the **Community String**.
2. Change the **Status** to **2(valid)** to add this row to the Trap Table. (Changing the Status to 1(invalid) removes the specified row from the Trap Table.)
3. When all information has been entered, click on **Set** to save the trap configuration.
4. Click on **Close** to close the window.

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